

## PRESS RELEASE

# ENDEGS ADEX Robot for the hazardous ATEX Zone 0 Robot replaces manual tank cleaning

Pförring, 30 September 2020 – When cleaning crude oil, petrol or slop tanks (especially dangerous tanks of mixed waste), cleaning personnel are exposed to significant health risks despite protective suits. But now all that can end. Degassing specialist ENDEGS offers its ADEX Robot for rental use for cleaning industrial storage tanks in the hazardous ATEX Zone 0. CEO Kai Sievers: “In my opinion it makes no sense to expose people to health risks when a robot can do the work.”

With this new robot rental offering, the family-owned company ENDEGS adds special tank cleaning on a rental base to its existing degassing business, helping professional cleaning companies perform rough cleaning safer and more efficient. This can take place parallel to the degassing process. ENDEGS also offers the robot to its core customers in the chemical, petrochemical, oil and gas industries. Sievers: “In those companies there is great interest in avoiding the use of personnel for cleaning in ATEX Zone 0, and thereby further reducing the risk for people and environment.”

The ADEX Robot is designed first and foremost for the rough cleaning of flat-bottom tanks. These were formerly cleaned by three or four workers in hazmat suits and self-contained breathing apparatus, in four shifts of about two hours. In contrast, the robot is controlled from a safe distance by an operator in a mobile ventilated cabin. Thanks to its small size (1800 mm long and about 545 mm wide), mobility and versatile robot arm motion, the ADEX robot can be used in many industries for all sorts of different materials.

### Covering the entire cleaning and degassing process

But ENDEGS looks at more than just the rough cleaning of the tank. This degassing specialist in Pförring near Ingolstadt, Germany, focuses on making the entire cleaning and degassing process safer and emissions-free. Accordingly, before the robot enters the tank a mobile ENDEGS combustion unit connected to it. This sets up a slight negative pressure within the tank, preventing vapours from escaping. Manual fine cleaning can start as soon as the robot finishes the rough cleaning. When the combustion unit and robot have done their jobs, the VOC (Volatile Organic Compounds) concentration in the tank is down to almost 0% LEL, meaning that there is only minimal risk of explosion. Cleaning personnel in the tank need only wear a respiratory mask with filter while they remove the small amount of material remaining.

The mobile combustion unit doesn't just degas the tank, but also the suction vehicle, since dangerous gas concentrations accumulate in it too as it receives the materials the

robot cleans out of the tank. Instead of releasing these gases into the atmosphere, a common but harmful practice, ENDEGS burns them off with a combustion rate of almost 100 percent.

Qualified personnel as a requirement for safe cleaning

If desired, in addition to providing the robot ENDEGS can also train the operators. David Wendel, Managing Director ENDEGS Operations: "We consider well-trained personnel to be a key requirement for safe robot-assisted cleaning and efficient processes. Safety and environmental protection are our main priorities."

The ADEX robot is the first to be certified for ATEX Zone 0, and meets German safety requirements. Every system component complies with all important European standards.

### About ENDEGS

Since 2007 this family-owned company in Pförring near Ingolstadt has provided patented leading-edge technology for safe, clean and ecologically sustainable degassing. The company developed the world's first fully equipped, trailer-mounted, autonomously operating combustion chamber, thus enabling mobile degassing for the first time anywhere. The capacity of ENDEGS mobile vapour combustion units is scalable from 0.1 to 50 MW as needed. This makes ENDEGS the market leader in total fleet combustion capacity. The company's degassing technologies have been used in over 1000 projects, and are designed to burn off volatile organic compounds (VOCs) and hazardous airborne pollutants (HAPs) in hazmat classes IIA, IIB and IIC with a combustion rate of very nearly 100 percent. ENDEGS also supports the campaign for healthy workplaces by the European Agency for Safety and Health at Work.

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